CITY OF ST. MARYS
2013 WATER QUALITY REPORT
Georgia Water System ID No.: 0390001

Name of Water System Contact
Wayne Broxton
911 Dispatcher

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Summary of Water Quality Information

The **City of St. Marys** drinking water system is owned and operated by the **City of St. Marys**. The facility office is located at 418 Osborne Street in St. Marys, Georgia. If there are ever any comments or inquiries to be made, please feel free to contact Wayne Broxton at the number listed above, Monday through Friday, 7:00 AM to 3:30 PM.

Included in this report is information about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The **City of St. Marys** is committed to providing your community with clean, safe, and reliable drinking water. For more information about your water or this report please call Wayne Broxton. **This report is available upon request at City Hall.**

Your water comes from three (3) community *groundwater* wells which have a combined service capacity of approximately 4.1 million gallons per day. The water source for all wells is 800 to 1100 feet deep into what is commonly called the *Upper Floridian Aquifer*. This water source provides ample volumes of water for your community. These wells are distributed throughout the **City of St. Marys.** These properties are protected from activities which could potentially cause contamination of this water source. Treatment is performed at the wells to include removal of contaminants and chlorine disinfection.

A ***Wellhead Protection Plan*** has been completed for the City. This is a report in which the Georgia Department of Natural Resources Environmental Protection Division identifies any types of pollution to which your water supply could be vulnerable and includes information regarding potential sources of contamination in your watershed. Changes have been made in this system recently; however, the ***Wellhead Protection Plan*** has not been updated to reflect those changes. The current plan indicates no potential pollution sources present in the fifteen (15) foot control zone for either well.

Cited potential pollution sources in the 100 foot management zone for Well 102 include access and secondary roads, electrical transformers and an above ground storage tank. Cited potential pollution sources in the 100 foot management zone for Well 103 include access and secondary roads, electrical transformers, utility poles, and an above ground storage tank. Cited potential pollution sources in the 100 foot management zone for Well 106 include access and secondary roads as well as a drainage canal. **This report is available upon request at City Hall.**

The **City of St. Marys** conducts laboratory tests for more than eighty (80) drinking water parameters on samples from each of its wells on a periodic basis determined by the Georgia Department of Natural Resources Environmental Protection Division Drinking Water Program and/or the United States Environmental Protection Agency. Generally, samples are collected for analysis of inorganic compounds, volatile organic compounds, radionuclides, and lead and copper once in every three (3) year period whereas nitrates and synthetic organic compounds are sampled once a year. Thirty-one (31) sites have been designated throughout the community from which twenty (20) samples are also collected on a monthly basis for bacteriological or microbial content. A waiver may be issued for synthetic organic compounds, cyanide and/or asbestos. The **City of St. Marys** has received drinking water monitoring waivers for Synthetic Organic Compounds until December 31, 2013 and a waiver for Cyanide and Asbestos through December 31, 2013, because studies show that distributed drinking water in this area is not vulnerable to contamination from these chemicals. Daily monitoring of chlorine, fluoride and flow are conducted by City personnel.

During 2013, the parameters for which analyses were conducted included monthly analysis for microbial contaminants, daily analysis for chlorine and fluoride residuals, annual analysis for nitrates and nitrites, analysis for inorganic compounds, radionuclides analysis, analysis for Lead and Copper content, as well as analysis for Total Trihalomethanes and Haloacetic Acids. **All detected contaminants are delineated in the accompanying charts. Any constituents not listed in the accompanying charts had results less than the detection limits and/or maximum contaminant levels.**

The City of St. Marys had one violation of water quality parameters during 2013. This water system violated a drinking water standard related to bacteriological or microbial content. Although this incident was not an emergency, consumers have a right to know what happened and what was done to correct this situation.

City personnel collected 20 samples to be tested for the presence of coliform bacteria during June, 2013. Two (2) samples showed the presence of total coliform bacteria. The standard is that no more than 1 sample per month may do so. There was no need to boil water or take other corrective actions. Individuals who have specific health concerns should consult their doctor. People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

This was not an emergency, and public notification was published at the time the incident occurred. If it had been an emergency, consumers would have been notified immediately. Coliform bacteria are generally not harmful. *Coliform bacteria are naturally present in the environment and are used as an indicator that other potentially-harmful bacteria may be present. Coliform bacteria were found in more samples than allowed and this was a warning of potential problems.*

Usually, the presence of coliform bacteria is a sign that there could be a problem with the system's treatment or distribution system (pipes). When coliform bacteria are detected in any sample, follow-up testing is done to see if other bacteria of greater concern, such as fecal coliform or E. coli, are present. There was no indication of the presence of these bacteria in subsequent testing. Appropriate measures were taken by City personnel, and no further violations have occurred.

Thirty (30) representative locations have been selected throughout your community where Lead and Copper analyses are conducted on a periodic basis. Analysis for the presence of Lead and Copper indicate the presence of service lines containing these materials in some single family residences, multi-family residences and/or commercial locations. Results indicated **NO** residences selected contained these components which exceeded the action levels for these parameters.

Lead and Copper may be found in household plumbing fixtures such as service lines, pipes, solders and fluxes as well as brass fixtures. Lead is found throughout the environment in the air, soil, water and household dust as well as in consumer products such as lead based paint, pottery and pewter. Lead and Copper enter drinking water as a result of the corrosion or wearing away of materials containing these metals. Lead can pose a significant risk to your health if too much of it enters your body.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of St. Marys is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

To minimize exposure to Lead and/or Copper, the following measures may be taken.

- When your water has been sitting for several hours, minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.
- Use cold water for drinking or cooking.
- Do not cook with or consume water from the hot water faucet.
- Do not use hot water for making baby formula.
- Use only "lead-free" solder, fluxes and materials in new household plumbing.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. The EPA has established Maximum Contaminant Levels (MCL's) and Maximum Contaminant Level Goals (MCLG's) for potential contaminants. MCL's are the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. MCLG's are the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety. **More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. **EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground,

it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that <u>may</u> be present in source water include the following:

- ***Microbial contaminants***, such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- ***Inorganic contaminants***, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- ***Pesticides and herbicides***, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- ***Organic chemical contaminants***, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- ***Radioactive contaminants***, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

*The **City of St. Marys** strives to maintain the highest standards of performance and quality possible. In order to maintain a safe and dependable water supply, improvements that benefit the community must be made. Please help keep these costs as low as possible by utilizing good water conservation practices.*

DEFINITION OF TERMS AND ABBREVIATIONS USED IN THIS REPORT

<u>Maximum Contaminant Level (MCL)</u>: *"The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technology."*

<u>Maximum Contaminant Level Goal (MCLG)</u>: *"The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety."*

<u>Action Level (AL)</u>: *"The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow."*

<u>Secondary Maximum Contaminant Level (SMCL)</u>: reasonable goals for drinking water quality. Exceeding SMCL's may adversely affect odor or appearance, but there is no known risk to human health.

<u>Treatment Technique (TT)</u>: *"A required process intended to reduce the level of a contaminant in drinking water."*

<u>Maximum Residual Disinfectant Level (MRDL)</u>: *"The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbiological contaminants."*

<u>Not Detected (ND)</u>: By regulation, this substance or group of substances was tested for in our finished tap water; however, none was detected at the testing limit.

<u>TTHMs (Total Trihalomethanes:</u> One or more of the organic compounds Chloroform, Bromodichloromethane, Chlorodibromomethane, and/or Bromoform.

<u>n/a</u>: Not applicable to this contaminant.

<u>ppb or ug/l</u>: parts per billion or micrograms per liter.

<u>ppm or mg/l</u>: parts per million or milligrams per liter.

<u>pCi/l</u>: picocuries per liter, a measurement of radiation.

CITY OF ST. MARYS WATER SYSTEM
2013 WATER QUALITY DATA
WSID: 0390001

The table below lists all the drinking water contaminants that have been detected in your drinking water. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The data presented in this table is from testing done during the year noted. The Federal Environmental Protection Agency (EPA) and the Georgia Department of Natural Resources Environmental Protection Division (EPD) require monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

DETECTED INORGANIC CONTAMINANTS TABLE

PARAMETER	UNITS	MCL [SMCL]	MCLG	St. Marys Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Chlorine	ppm	4	NA	2.02	0.4 to 3.2	2013	No	Water additive used for the control of microbes
Fluoride	ppm	4 [2]	4	0.76	0.51 to 1.0	2013	No	Erosion of natural deposits; promotes strong teeth

DETECTED ORGANIC CONTAMINANTS TABLE

PARAMETER	UNITS	MCL	MCLG	St. Marys Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Haloacetic Acids	ug/l	60	NA	7.7	0 to 4.9	2013	No	By product of drinking water chlorination
Total Trihalomethanes	ug/l	80	NA	47.7	2.6 to 21	2013	No	By product of drinking water chlorination

OTHER DETECTED UNREGULATED CONTAMINANTS TABLE

PARAMETER	UNITS	MCL [SMCL]	MCLG	St. Marys Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Sodium	ppm	**	**	31	NA	2013	No	Erosion of natural deposits

LEAD AND COPPER MONITORING RESULTS

PARAMETER	UNITS	Action Level	MCLG	St. Marys 90th Percentile	# of sample sites above Action Level	Sample Date	Violation No/Yes	Typical Source of Contaminant
Lead	ppb	15	0	2.5	0	2013	No	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.055	0	2013	No	Corrosion of household plumbing

MICROBIOLOGICAL MONITORING RESULTS

BIOLOGICAL PARAMETERS	MCL	MCLG	St. Marys Water System Results	PositiveSample Date	Sample Year	Violation No/Yes	Typical Source of Contaminant
Presence or Absence of bacteria in sample	Number of Detections		Number of Detections	Month/Year			
Total Coliform	0	0	3	6/2013 + 8/2013	2013	**Yes** (6/13)	Naturally present in the environment
Fecal Coliform	0	0	0	NA	2013	**No**	Warm blooded animals

RADIONUCLIDES TABLE

PARAMETER	UNITS	MCL	MCLG	St. Marys Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Alpha emitters	pCi/L	15*	0	<1	NA	2013	No	Erosion of natural deposits
Radium 226	pCi/L	5*	0	<1	NA	2013	No	Erosion of natural deposits
Radium 228	pCi/L	5*	0	<1	NA	2013	No	Erosion of natural deposits

*** The MCL for alpha emitters is 4 mrem/year. EPA considers 15 pCi/L to be the level of concern for alpha emitters including Radium 226 and/or 5 pCi/L for a combined Radium 226 and Radium 228.** **FTM = Failure to Monitor** ***** Parameters, values and/or sources vary.**

**** No established MCL** **M = Monitored through State analysis and facility daily** **R = Resampled, results below action level or not detected**